

(b) a polynucleotide encoding the complete polypeptide encoded by the cDNA contained in ATCC Deposit No. 209665.

51. (New) The isolated nucleic acid molecule of claim 50 which comprises polynucleotide (a).

52. (New) The isolated nucleic acid molecule of claim 50 which comprises polynucleotide (b).

53. (New) The nucleic acid molecule of claim 50 wherein said polynucleotide further comprises a heterologous polynucleotide.

54. (New) The nucleic acid molecule of claim 53 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

55. (New) A recombinant vector comprising the nucleic acid molecule of claim 50.

56. (New) The recombinant vector of claim 55 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

57. (New) A recombinant host cell comprising the nucleic acid molecule of claim 50.

58. (New) The recombinant host cell of claim 57 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

59. (New) A method for producing a protein, comprising:

(a) culturing the host cell of claim 57 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and

(b) recovering the protein.

60. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 58 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

61. (New) An isolated nucleic acid molecule comprising a first polynucleotide 90% or more identical to a second polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding amino acid residues 1 to 160 of SEQ ID NO:4; and
- (b) a polynucleotide encoding the complete polypeptide encoded by the cDNA contained in ATCC Deposit No. 209665.

62. (New) The isolated nucleic acid molecule of claim 61 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues 1 to 160 of SEQ ID NO:4.

63. (New) The isolated nucleic acid molecule of claim 62 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues 1 to 160 of SEQ ID NO:4.

64. (New) The isolated nucleic acid molecule of claim 61 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding the complete polypeptide encoded by the cDNA contained in ATCC Deposit No. 209665.

65. (New) The isolated nucleic acid molecule of claim 64 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the complete polypeptide encoded by the cDNA contained in ATCC Deposit No. 209665.

66. (New) The nucleic acid molecule of claim 61 wherein said polynucleotide further comprises a heterologous polynucleotide.

67. (New) The nucleic acid molecule of claim 66 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

68. (New) A recombinant vector comprising the nucleic acid molecule of claim ~~61~~.

69. (New) The recombinant vector of claim ~~68~~ wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

70. (New) A recombinant host cell comprising the nucleic acid molecule of claim ~~61~~.

71. (New) The recombinant host cell of claim ~~70~~ wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

72. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim ~~70~~ under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

73. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim ~~71~~ under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

74. (New) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

(a) a polynucleotide encoding amino acid residues  $n^2$  to 160 of SEQ ID NO:4, where  $n^2$  is an integer in the range of 1 to 28;

(b) a polynucleotide encoding amino acid residues 1 to  $m^2$  of SEQ ID NO:4, where  $m^2$  is an integer in the range of 129 to 160; and

(c) a polynucleotide encoding amino acids  $n^2$  to  $m^2$  of SEQ ID NO:4, where  $n^2$  is an integer from 1 to 28 and  $m^2$  is an integer in the range of 129 to 160.

75. (New) The isolated nucleic acid molecule of claim ~~74~~ which comprises polynucleotide (a).

76. (New) The isolated nucleic acid molecule of claim 74 which comprises polynucleotide (b).

77. (New) The isolated nucleic acid molecule of claim 74 which comprises polynucleotide (c).

78. (New) The isolated nucleic acid molecule of claim 75 wherein said polynucleotide encodes amino acids 10 to 160 of SEQ ID NO:2.

79. (New) The isolated nucleic acid molecule of claim 75 wherein said polynucleotide encodes amino acids 28 to 160 of SEQ ID NO:2.

80. (New) The isolated nucleic acid molecule of claim 76 wherein said polynucleotide encodes amino acids 1 to 150 of SEQ ID NO:2.

81. (New) The isolated nucleic acid molecule of claim 76 wherein said polynucleotide encodes amino acids 1 to 140 of SEQ ID NO:2.

82. (New) The isolated nucleic acid molecule of claim 77 wherein said polynucleotide encodes amino acids 28 to 129 of SEQ ID NO:2.

83. (New) The nucleic acid molecule of claim 74 wherein said polynucleotide further comprises a heterologous polynucleotide.

84. (New) The nucleic acid molecule of claim 83 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

85. (New) A recombinant vector comprising the nucleic acid molecule of claim 74.

86. (New) The recombinant vector of claim 85 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

87. (New) A recombinant host cell comprising the nucleic acid molecule of claim 74.

88. (New) The recombinant host cell of claim 87 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

89. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 87 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

90. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 88 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

91. (New) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding amino acid residues 57 to 64 of SEQ ID NO:4;
- (b) a polynucleotide encoding amino acid residues 72 to 77 of SEQ ID NO:4;
- (c) a polynucleotide encoding amino acid residues 99 to 105 of SEQ ID NO:4;
- (d) a polynucleotide encoding amino acid residues 121 to 128 of SEQ ID NO:4;
- (e) a polynucleotide encoding amino acid residues 19 to 27 of SEQ ID NO:4;
- (f) a polynucleotide encoding amino acid residues 30 to 38 of SEQ ID NO:4;
- (g) a polynucleotide encoding amino acid residues 40 to 48 of SEQ ID NO:4;
- (h) a polynucleotide encoding amino acid residues 58 to 67 of SEQ ID NO:4;
- (i) a polynucleotide encoding amino acid residues 105 to 113 of SEQ ID NO:4;
- (j) a polynucleotide encoding amino acid residues 129 to 137 of SEQ ID NO:4;
- (k) a polynucleotide encoding amino acid residues 151 to 159 of SEQ ID NO:4; and
- (l) a polynucleotide encoding a fragment of amino acid residues 1 to 160 of SEQ ID NO:4, wherein said fragment modulates immune cell proliferation and differentiation.

92. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (a).

93. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (b).

94. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (c).

95. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (d).

96. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (e).

97. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (f).

98. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (g).

99. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (h).

100. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (i).

101. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (j).

102. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (k).

103. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (l).

104. (New) The isolated nucleic acid molecule of claim 91 which comprises polynucleotide (a) and (k).

105. (New) The nucleic acid molecule of claim 91 wherein said polynucleotide further comprises a heterologous polynucleotide.

106. (New) The nucleic acid molecule of claim 105 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

107. (New) A recombinant vector comprising the nucleic acid molecule of claim 91.

108. (New) The recombinant vector of claim 107 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

109. (New) A recombinant host cell comprising the nucleic acid molecule of claim

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110. (New) The recombinant host cell of claim 109 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

111. (New) A method for producing a protein, comprising:

(a) culturing the host cell of claim 110 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and

(b) recovering the protein.

112. (New) A method for producing a protein, comprising:

(a) culturing the host cell of claim 110 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and

(b) recovering the protein.

113. (New) An isolated nucleic acid molecule comprising at least 30 contiguous nucleotides of nucleotide sequence 1 to 850 of SEQ ID NO:3, or the complementary strand thereto.

114. (New) The isolated nucleic acid molecule of claim ~~113~~ wherein said nucleic acid molecule comprises at least 30 contiguous nucleotides of nucleotide sequence 1 to 850 of SEQ ID NO:3.

115. (New) The isolated nucleic acid molecule of claim ~~113~~ wherein said nucleic acid molecule comprises at least 30 contiguous nucleotides of the complementary strand of nucleotide sequence 1 to 850 of SEQ ID NO:3.

116. (New) The isolated nucleic acid molecule of claim ~~114~~ wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of nucleotide sequence 1 to 850 of SEQ ID NO:3.

117. (New) The isolated nucleic acid molecule of claim ~~115~~ wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the complementary strand of nucleotide sequence 1 to 850 of SEQ ID NO:3.

118. (New) The isolated nucleic acid molecule of claim ~~114~~ wherein said nucleic acid comprises SEQ ID NO:3.

119. (New) The isolated nucleic acid molecule of claim ~~115~~ wherein said nucleic acid molecule comprises the complementary strand of the nucleotide sequence of SEQ ID NO:3.

120. (New) The nucleic acid molecule of claim ~~117~~ which further comprises a heterologous nucleotide sequence.



121. (New) The nucleic acid molecule of claim 120 wherein said heterologous nucleotide sequence encodes a heterologous polypeptide.

122. (New) A recombinant vector comprising the nucleic acid molecule of claim 113.

123. (New) The recombinant vector of claim 122 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

124. (New) A recombinant host cell comprising the nucleic acid molecule of claim 113.

125. (New) The recombinant host cell of claim 124 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

126. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 124 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

127. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 125 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

128. (New) An isolated nucleic acid molecule comprising at least 30 contiguous nucleotides of the cDNA in ATCC Deposit No. 209665.

129. (New) The isolated nucleic acid molecule of claim 128 wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the cDNA in ATCC Deposit No. 209665.

130. (New) The nucleic acid molecule of claim 128 wherein said polynucleotide further comprises a heterologous polynucleotide.

131. (New) The isolated nucleic acid molecule of claim 130 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

132. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 128.

133. (New) The recombinant vector of claim 132 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

134. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 128.

135. (New) The recombinant host cell of claim 134 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

136. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 134 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

137. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 135 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

138. (New) An isolated nucleic acid molecule comprising a polynucleotide which hybridizes to the complement of nucleotides 1 to 860 of SEQ ID NO:3 wherein said hybridization occurs under the conditions consisting of hybridization of said polynucleotide in a buffer consisting of 50% formamide, 5XSSC, 50mM sodium phosphate (pH 7.6), 5X

Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA and wash in a solution consisting of at 0.1XSSC at 65°C.

139. (New) The nucleic acid molecule of claim 138 wherein said polynucleotide further comprises a heterologous nucleic acid sequence.

140. (New) The nucleic acid molecule of claim 139 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.

141. (New) A recombinant vector comprising the nucleic acid molecule of claim 138.

142. (New) The recombinant vector of claim 141 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

A 143. (New) A recombinant host cell comprising the nucleic acid molecule of claim 138.

144. (New) The recombinant host cell of claim 143 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

145. (New) A method for producing a protein, comprising:

(a) culturing the host cell of claim 143 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and

(b) recovering the protein.

146. (New) A method for producing a protein, comprising:

(a) culturing the host cell of claim 144 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and

(b) recovering the protein.

147. (New) An isolated nucleic acid molecule comprising a polynucleotide which hybridizes to the cDNA contained in ATCC Deposit No. 209665 wherein said hybridization

occurs under the conditions consisting of hybridization in a buffer consisting of 50% formamide, 5XSSC, 50mM sodium phosphate (pH 7.6), 5X Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA and wash in a solution consisting of at 0.1XSSC at 65°C.

148. (New) The nucleic acid molecule of claim 147 wherein said polynucleotide further comprises a heterologous polynucleotide.

149. (New) The nucleic acid molecule of claim 148 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

150. (New) A recombinant vector comprising the nucleic acid molecule of claim 147.

151. (New) The recombinant vector of claim 150 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

152. (New) A recombinant host cell comprising the nucleic acid molecule of claim 147.

153. (New) The recombinant host cell of claim 152 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

154. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 152 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein.

155. (New) A method for producing a protein, comprising:

- (a) culturing the host cell of claim 153 under conditions suitable to produce a protein encoded by the nucleic acid molecule; and
- (b) recovering the protein. --